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(71)Applicant: EBARA INFILCO CO LTD

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(72)Inventor: SUZUKI TAKAYUKI

ENDO KANEAKI

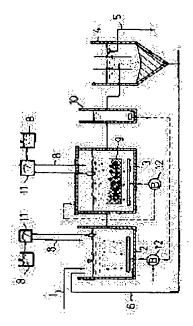
MATSUO YOSHITAKA

## (54) TREATMENT OF WASTE WATER

## (57)Abstract:

PURPOSE: To oxidize and decompose exactly dithionic acid and polythionic acid in waste water by denitrifying biologically NOX by using sulfur on a sulfur compd. in an anaeration stage, and bringing the propagated microbes into contact with the waste water in an aerobical stage.

CONSTITUTION: Waste water 1 is admitted together with return sludge into a nitrification tank 2, where NH3 is nitrified to NOX and dithionic acid and polythionic acid are oxidized to sulfuric acid. The liquid mixture completed of the nitrification flows into a denitrification tank 3, where the NOX is denitrified by the sulfur particles as a reducing agent 9 packed in the tank 3. The outflow liquid mixture from the tank 3 flows into a reaction tank 10 under an aerobic condition where the org. materials eluted with activated sludge are oxidized under an anaerobic condition to improve the quality of the treated water: furthermore, the fine N2 foam sticking to the flocs of



microbes is removed under the exposure to the atmospheric air, and the floating of the flocs of the microbes in a settling tank 4 is prevented.

## **LEGAL STATUS**

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